



Dendrobates tinctorius
(2 White morph variants).

AMERICAN DENDROBATID GROUP



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The purpose of the ADG is to distribute information on captive maintenance and propagation of Dendrobatid frogs, and to develop better communication between Dendrobatid breeders. The ADG is also interested in the maintenance and propagation of Mantellid frogs and Atelopid toads. Its format and every other month distribution are designed to provide current information and new developments in the hobby. This newsletter appears six times a year at a cost \$10.00 per calendar year. Back issues for 1992 are available for \$5.00; back issues for 1993 and 1994 are available for \$10.00/year.

Subscriptions, comments, etc. should be sent to Charles Powell (2932 Sunburst Dr., San Jose, CA 95111 Tel.: (408) 363-0926).

Notes from the Editor

The First American Frog Day was a great success as you'll read below in the article by Anthony Hundt. We also have a wonderful article on the Dutch Frog Day by Tim Staab. Many thanks to both of them. If anyone is interested in helping to organize the **Second American Frog Day** please contact the Newsletter editor - I especially need help in advertising the event.

I'm interested in developing captive breeding guidelines for poison frogs. Anyone interested in helping develop captive guidelines for poison frogs is directed to a recent work on captive breeding fish by the Aquatic Conservation Network called "Captive breeding guidelines." It can be purchased for \$12 from the Aquatic Conservation Network (540 Roosevelt Ave., Ottawa, Ontario, Canada K2A 1Z8). Then we can start to develop captive breeding guidelines for our frogs, especially since many of these frogs may become extinct in the wild.

The First Annual American Frog (and Amphibian) Day

Anthony Hundt
Ottawa, Illinois

The First Annual American Frog (and Amphibian) Day was held in San Jose, California on August 26th. In case you could not be there here are some of my experiences.

Thursday

I left Chicago at 10:00 AM and arrived in San Jose at 1:30 PM. After getting settled into my hotel, I called Chuck Powell and arranged to deliver a pair of *Dendrobates azureus* that a friend of mine sent for him. I met him at his house at 7:00 PM. The first thing that I noticed was that his living room is full of large naturalistic vivaria. The vivaria ranged in size from 30-gallon to 70-gallon. The design of these vivaria were mostly the same and consisted of potted plants (various bromeliads, ferns, and antheriums) buried in pea gravel. The gravel was contoured with drift wood to form a small

pond in one corner of the terrarium and higher land areas at the other end. Plants were buried in their pots in the gravel above the water table to prevent their rotting. A pump in combination with an under-gravel filter was used to circulate the water creating humidity and a biological filter. Lighting was provided by fluorescent lights. Two vivaria had a flat sheet of cork bark on the back of it providing a decorative background. While Chuck housed the *D. azureus*, his sons pointed out the frogs among the plants in the various vivaria. He keeps blue and mostly black *D. auratus*, *D. azureus*, two forms of *D. ventrimaculatus*, *D. fantasticus*, *D. imitator*, and *Epipedobates tricolor*.

That night, I got to see the frogs which he would be selling at Frog Day. These included: Santa Isabela *E. tricolor*, Panamanian *D. auratus* (mostly black), *D. imitator* 'green' and 'gold', wild *D. pumilio* 'strawberry' and 'green/yellow' morphs, F1 tadpoles from wild *D. azureus*, *D. azureus* froglets, *D. lehmanni* 'yellow' and 'red' morphs, and *D. histrionicus*. Some of the frogs belonged to other ADG members who could not come but allowed their frogs to be sold. I was very impressed by all the frogs and his vivaria.

Friday

I was invited back to Chuck's house at 6:00 PM on Friday to meet the speakers for the event - this was a fascinating evening. I met Danté Fenolio (Amphibian Research Group), Peter Fippinger (Denver Zoo), Philippe de Vosjoli (Advanced Vivarium Systems), Bob Mailloux (Sunfire Dragon Ranch), Greg and Tammy Olson, Mike Reedy (Amphibian Research Group), Ron and Jan Roper, and Andrew Short (Vancouver Aquarium). It was fun listening to the adventures of these people. After a while, we left to setup chairs and tables for Frog Day.

Saturday

Frog day began at 9:00 am and admission was \$4.00. There were six vendors with a large number of frogs, salamanders, and plants for sale. The frogs for sale, in addition to the ones mentioned above, were: *Agalychnis callidryus*, *Dendrobates fantasticus*, *D. imitator* 'gold' and 'green,' *D. leucomelas*, *D. reticulatus*, *D. tinctorius* 'white,' 'cobalt,' and 'yellow back', *D. ventrimaculatus* (2 forms), *Kassina maculata*, *Mantella aurantiaca*, *M. laevigata*, *M. viridis*, *Pipa pipa*, *Phyllobates vittatus*, *Phyllomedusa leucophiliata*, and several others.

The speakers began at 1:00 PM and included Mike Reedy, Danté Fenilio, Jim O'Riley, and Philippe de Vosjoli. Mike Reedy talked on the maintenance and breeding of Phyllomadusine frogs. Danté Fenolio talk was "Night Hiking in the Rain Forest" and paralleled a recent article he published in "The Vivarium." He showed beautiful slides of frogs, reptiles, spiders, bugs and plants. During the talk I found out that Danté has worked with the genus *Hemiphractus*, and I would like to work with it some day. *Hemiphractus* is an unusual Hylid with a pointed head and it feeds on other frogs. Jim O'Riley spoke on cecileans (worm like amphibians). This was a very informative classroom-like lecture about a poorly known group of amphibians. Philippe de Vosjoli spoke about "Biophilia" (the love of nature) which sparked his interest in nature. He also talked on the importance of, and how to, set up naturalistic vivaria, and his experiences with several anuran (frog) species. I heard Philipe speak at the National Reptile Breeder's Expo recently in Orlando, Florida and this was a similar talk, but had more information about amphibians. All of the speakers have had articles in "The Vivarium" magazine on these topics.

After the lectures were over (about 4 PM), frog selling continued until about 6:00 PM when the event was finished. There were about 70 people in attendance this year and I would imagine it will be much larger next year. I think the best part of the First American Frog Day, besides being

able to hand select the frogs I wanted, was talking to other frog keepers. They are the best source of information and new ideas.

An American at Dutch Frog Day

Timothy B. Staab
Baltimore, Maryland

This year I visited Holland in May for the Dutch Frog Day and thought ADG members might be interested in my impressions of the trip and event. Flights to Amsterdam are moderately priced if tickets are purchased well in advance. My round trip ticket cost \$625 bought three months ahead of time (from Dulles International Airport outside of Washington, D.C.). From the East Coast the trip takes about seven hours. There is also a plus six hour time difference from Eastern Daylight time, so I arrived in Holland tired and severely out-of-sync with local time.

Travel within Holland is fairly easy by train. At stations in small towns there are vending machines which issue tickets. These work very well but the instructions are in Dutch only. Take a small Dutch/English dictionary (I didn't) because operation of the ticket machines is not intuitive. I managed to get the tickets I needed through lucky guesses. In the larger stations there are ticket windows and almost everyone speaks English. Once you have a ticket it doesn't take long to get anywhere - the trains are fast and on-time. Holland is not a large country.

Prior to my trip I made arrangements to visit frog enthusiasts in Holland and one in Germany. The first person I visited kept many types of frogs over the years, but now only keeps *Dendrobates azureus*. He has four adult pairs housed in four terrariums which are of the typical European style with a front that opens. The tanks are custom made of glass and aluminum, about 20" x 20" x 30" (w x l x h), with a hinged front. They are well planted with a wide variety of tropical plants and covered on the inside by a heavy growth of live moss. These tanks contain no waterfall or filters and are sprayed twice a day, then drained as needed. This collection included a female frog that still produces healthy off-spring at the age of fourteen years. He uses a small multi-chambered tadpoles brooder similar in function to the one described by Ed Oshaben in an earlier ADG Newsletter (No. 7).

The next frog breeder I visited has dispensed with terrarium altogether, although he still builds them for friends. He has a small greenhouse in his house which he has transformed into a miniature rain forest. The greenhouse is about 7'x10'x7' (w x l x h) and there are tropical plants everywhere. The humidity and temperature are automatically controlled and fruit flies and springtails breed freely within the enclosure - perfect for Dendrobatids. While taking in the beauty of the plants and wiping the condensation off my glasses I was able to spot many frogs, including several pairs of *Dendrobates pumilio* and eight *D. lehmanni* among the foliage. The proud owner of the greenhouse also pointed out the smallest amphibian in the enclosure - a recently transformed, captive bred *D. lehmanni*. He believes that this is the first captive breed specimen in Holland. The frogs in this set-up forage for their food in a natural fashion. The floor is covered with chips of oak bark in which springtails reproduce - a close examination of the floor revealed thousands of them. Fruit-flies were established by using cups of medium attached to tree branches in the greenhouse and adult vestigial-winged flies were visible on leaves throughout the enclosure.

The last breeder I visited lives in Germany. Times have certainly changed in Europe as I

passed from Holland to Germany without my noticing - no customs, no border guards, no passport check, no signs. I see more evidence that I've crossed a border when I drive from Maryland to Pennsylvania. The breeder in Germany does things on a larger scale than others I've visited and/or spoken with. He maintains about a dozen species in nearly twenty terrariums. Many of his tanks have a centrally operated (but not automatic) sprinkler system and built-in drains. He uses typical European tanks, as described above, and a compartmented tadpole brooder similar to Ed Oshaben's. An interesting aspect of his breeding method is his in-tank raising of tadpoles. His tanks are designed with a shallow gutter at the front, which contains about 1 cm of water. He allows some of his eggs to hatch in the tank. The parents then transport the tadpoles to this gutter where they eventually transform to immature frogs. These tadpoles are given no food and presumably they eat the naturally occurring algae and whatever else they can glean from the gutter.

Frog Day

The Frog Day meeting was held at a public assembly hall in the very small town of Marne, south of Amsterdam near Utecht. Marne has no hotels, but it does have a train station. I stayed in near-by Maarsbergen, which has a motel, but no train station! Luckily its only a two mile walk from Maarsbergen to Marne and there are bike/pedestrians paths everywhere in Holland. So walking between towns is not a problem, just watch out for bikes.

The meeting hall, where the buying and selling of frogs took place, resembled a public school auditorium. There was also a smaller room where plants, food items, and accessories were sold. If you have attended any reptile expo's in the US, one aspect of the Dutch show would probably shock you, as it did me. The doors to the show were opened to both buyers and sellers at the same time. Everyone rushed to the tables which appeared to have no reserved spots. Vendors hastily unpacked their frogs as the eager buyers jostled for a look - very chaotic, but fun.

There were about 400 people in attendance, according to Hans Zwoferink, one of the people who organized this event. I spoke with people from several European countries, England and the US and saw more than 20 species of Dendrobatids for sale. All were captive breed, except for some adult *D. tinctorius* which appeared to be wild-caught. The prices, in spite of the recent decline of the dollar, were low by American standards.

I also met ADG member Eric Anderson at the show. Eric has helped me, via telephone, through some beginner's problems with my frogs. We had tried to hook up in person when I traveled in Florida, but his plans changed and I met his frogs but not him. Finally, in Marne, we met.

Bring back Frogs

Any frog enthusiast who travels to Holland will probably want to bring some captive-bred frogs back to the US. International regulations are not designed to make this easy, and in practice it can be damned near impossible. CITES (Convention on International Trade in Endangered Species) permits are required to export and import Dendrobatid frogs, which are listed as Appendix II CITES animals.

From the point of view of a frog hobbyist attending Frog Day, the permit process is terribly inconvenient. I originally planned to get all necessary permits in advance before I even knew who I'd be buying from. I had hoped to look at all available frogs at the show, negotiating the best price possible on the best frogs, but the permit process was more involved that I'd thought. CITES permits in Holland take about two weeks, but must be applied for by the exporter (seller). For legal entry into the US it is essential that both the buyer's and seller's name appears on the original documents. This

means that the purchase must be agreed to prior to Frog Day or that the permits can't be applied for until after the show.

If you plan to go to future Frog Days and bring back some frogs, the best plan might be to try and contact some breeders through the Netherlands Dendrobatid Society, and arrange for permits before you go. Make sure the permits are issued in your name and you need to make arrangements with the U. S. Fish and Wildlife so an inspector can meet you at Customs for inspection of your frogs and permits.

All thing considered it is far easier and more economical to buy frogs from breeders or importers in the US, but to me it was worth going to Holland just to meet such a large number of experienced hobbyists. My visit was interesting and fun, I learned a lot about caring for frogs, and I made some long-distance, long-term friends.

NEW LITERATURE

Atelopids

Ibanez, Roberto D., Jaramillo, Ceasar A., and Solis, Frank A., 1995, Una especie nueva de *Atelopus* (Amphibia: Buronidae) de Panama. Caribbean Journal of Science, 31(1/2): 57-64.

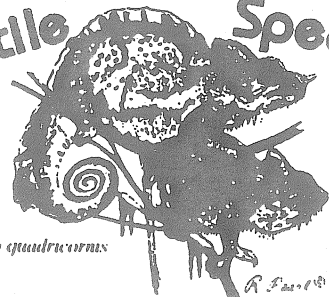
Dendrobatids

Poynton, Sara L., Whitaker, Brent R., 1994, Protozoa in poison dart frogs (Dendrobatidae): clinical assessment and identification. Journal of Zoo and Wildlife Medicine, 25(1): 29-39.

ADS:

Rates for business card adds are \$10 per issue or \$50 per year. If you are interested please contact the Newsletter editor.

REPTILE SPECIALITIE (John Uhern, 7473 Foothill, Tujunga, CA 91042 Tel. (818) 352-1796; Fax (818) 353-7381) has various captive breed Dendrobatids imported for sale. Write or call for information.



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For Sale

Ads for sale of frogs, or requests or offering of breeding loans, etc. are free to members and will run for two issues only, unless the Newsletter editor is notified.

<i>Dendrobates auratus</i> 'Hawaii'	\$30 ea.	Eric Anderson
<i>Dendrobates leucomelas</i> 'Orange'	\$60 ea.	12231 Newberry Rd.
<i>Dendrobates tinctorius</i> 'Cobalt'	\$50 ea.	Gainesville, FL 32607
<i>Epipedobates tricolor</i> (2 color morphs)	\$50 ea.	(904) 332-7908

<i>Phyllobates vittatus</i>		Will Brown
tadpoles	\$25 ea.	1423 Alabama St.
froglets	\$35 ea.	Lafayette, IN 47905
	or 5/\$150	(317) 742-5331

Many *Dendrobates tinctorius* morphs and some half grown *Dendrobates leucomelas* 'Orange' (from unrelated females). Also various CB "thumbnail" size unrelated Dendrobatids. Prices are negotiable. Ted R. Kahn (P. O. Box 1375, Sterling, VA 20164-1375. Tel.: (703) 242-4543.

<i>Mantella laevis</i> (captive breed)	\$40 ea .	Ian Maes
		6136 Cedarwood
		Las Vegas, NV 89103
		(702) 873-2126

<i>Dendrobates tinctorius</i> 'Giant Orange'	\$90 ea.	Charles Nishihara
		3271 Pinao St.
		Honolulu, HI 96822
		(808) 988-3420

<i>Dendrobates auratus</i> 'Zwartgroene'	\$40 ea.	Charles Powell
(a Panamanian form which is 80% black)		2932 Sunburst Dr.
<i>Dendrobates pumilio</i> 'Yellow/green with tan/brown legs'		San Jose, CA 95111
(wild adults)	\$30 ea.	(408) 363-0926
<i>Epipedobates azuraventr</i> (captive breed)	\$50 ea.	
<i>Epipedobates tricolor</i> 'Santa Isabel'		
(tadpoles)	\$15 ea. (8/\$100)	
(captive juvenile)	\$25 ea.	

Plants:

4" pot of <i>Anthurium amazone</i>	\$5 ea.
miniture <i>Anthurium</i> with red flower, great for frog tanks	
4" pot - Bromaliads (6 to 8" tall)	\$8 ea.

Wanted:
various *Phyllobates*

Nyles Bauer
P. O. Box 3738
Tucson, AZ 85722
(520) 321-0225

Single red and black male *Dendrobates lehmanni* looking for a single red and black female.
Contact Anthony Hundt (P. O. Box 284, Ottawa, IL 61350 Tel.: (815) 433-4679).

Dendrobates tinctorius 'Powder blue and Cobalt'
females

Tony Kessler
1231 Main St.
Springfield, OR 97477
(503) 741-9105

Dendrobates auratus 'Panama' - female

Aaron Savino
211 S. Fremont St., #110
San Mateo, CA 94401

Societies

AMERICAN TARANTULA SOCIETY: For enthusiasts and scientists. Forum magazine (6/yr) educational, entertaining and readable. Over 150 Accurate scientific & common names of tarantulas and scorpions in each issue. Contact: ATS, P. O. Box 2594, S. Padre Island, TX 78597. \$15/year US, \$20 Canada, \$30 elsewhere.

CHAMELEON INFORMATION NETWORK: The CiN is a member supported organization with an interest in the old world family of Chamaeleonidae. It publishes a quarterly publication (The CiN Newsletter) for \$12/4 issues, \$22/8 issues. Foreign subscribers add \$1.50 for each issue. For subscription information contact: Ken Kalisch, 412 West E St., Encinitas, CA 92024. Tel.: (619) 436-7978. Send all payments to: Ardi Abate, 13419 Appalachian Way, San Diego, CA 92129.

NEW MEMBERS

Doug Alton (California)
Frank Bailey (Kansas)
Peter Bandre (Florida)
Nyles Bauer (Arizona)
Bill Beifuss (Ohio)
Darrell Carlson (Pennsylvania)
Juan Casanova (Florida)
Mark Cservenyák (Maryland)
Charles Debono (Mad Jungle Reptile Club, California)
David Day (Florida)
Roberto Desantos (California)

Alexandra Early (California)
Tom Flanagan (Illinois)
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Ralph Stewart (Utah)
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Marc Weiss (Florida)
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